

BEST AVAILABLE COPY

Amendments to the Specification

The following refers to the paragraph numbering indicated in the application as published.

Please replace paragraph [0036] with the following replacement paragraph:

[0036] The transducers 82, 84, 86 are each mounted on the substrate 80 such that ~~[[there]]~~ the axis of propagation is inclined upwardly relative to the axis of rotation of the drum 44. As shown in FIG. 5, the angle of inclination α , measured from the horizontal is selected so that the axis of propagation is generally orthogonal to the average tangent to the surface of a breast located in the drum 44. Typically an angle of 30° to the horizontal (i.e. 60° to the axis of the rotation) is found to be satisfactory although a range of 25° to 35° (55° to 65° to the axis of rotation) may be used.

Please replace paragraph [0042] with the following replacement paragraph:

[0042] As shown schematically in FIG. 7, after one revolution, the data acquisition module 25 acquires data representing a set of conical slices S_1, S_2, S_3 made up of segments 124 representing the signals obtained from transducers 82, 84, and 86 respectively. Each subsequent scan obtains data representing an additional set of slices displaced vertically from the previous set to provide a set of nested conical slices from which a three dimensional image may be generated. The data acquisition module 25 receives data including the digitised reflected signal received by each of the transducers and the circumferential and vertical position of the transducer when the signal was received. Each of the data records, therefore, is a representative of the structure along respective segments 124 of the conical slices S_1, S_2, S_3 , shown in FIG. 7. To permit generation of a three dimensional image, the data in the data acquisition module 25 must be manipulated as set out in the flow chart of FIG. 8.

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Please replace paragraph [0047] with the following replacement paragraph:

[0047] Initially, the contour C_0 of the surface of the breast is located by examining each composite received signal for the initial reflection. The detected contour C_0 is decreased by a predetermined offset, $[[dr]] \underline{d}_0$, and the average signal about the circumference of the decreased contour C_1 is obtained. The contour is further decreased by the offset $[[dr]] \underline{d}_1$ and the average signal C_2 is obtained. This is repeated along the path of the propagation to an inner value to obtain an attenuation profile indicated in chain dot line based on the average signal. Once the profile is determined, an inverse or reciprocal of the profile is obtained and a brightening algorithm applied to the reformatted signals to obtain a normalised set of data representative of the structure that has been insonified.